

	ISOLATION, LOCK OUT, TAG OUT PROCEDURE	Version No:	4.0
		Issued:	09/08/2021
		Next Review:	August 2025

1. Overview

The District Council of Peterborough recognises its obligation to:

- Ensure that, as far as is reasonably practicable, electrical equipment and plant are without risks to the health and safety of any person, and
- Manage risks to health and safety associated with electrical equipment and plant under its management and control.

This procedure aims to:

- Ensure that reasonably foreseeable hazards associated with electrical equipment and plant in the workplace are identified and risks to health or safety are eliminated or minimised through isolation and lock out tag out;
- Comply with legislative requirements related to the use of lockout or isolation devices, danger tags, permit to work systems and other control measures;
- Provide and outline the minimum standards so that:
 - Unauthorised alterations to, or interference with, electrical equipment and plant is prevented; and
 - Electrical equipment and plant that is not in use is left in a state that does not create a risk to the health or safety of any person; and
- Ensure the provision of relevant information and training in relation to repairs or maintenance of electrical equipment and plant.

SIGNED:

CEO

Date: 9/8/2021

Chairperson, Health and Safety Committee

Date: 9/8/2021


2. Core components

The core components of the organisation's isolation, lock out, tag out procedure aim to:

- Identify energy sources;
- Require risk assessments that cover the whole maintenance/activity cycle be completed for work requiring isolation, lock out and tag out activities;
- Implement controls identified as part of the risk assessment process based on the highest level of the Hierarchy of Control that is reasonably practicable;
- Implement a system for the identification and provision of relevant information and training in relation to the isolation, lock out, tag out procedure;
- Identify monitoring/inspection requirements and put in place a process to ensure they are regularly scheduled and conducted.
- Identify and implement appropriate corrective actions, where required and
- Require records to be maintained and made available.

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3. Definitions




Authorised person	A person with approval to issue permits for isolation, lock out, tag out activities
Competent person	<p>For the purposes of this procedure, a competent person means (in addition to the definition contained within the Work Health and Safety Regulations 2012):</p> <p>(a) For electrical work on energised electrical equipment or energised electrical installations (other than testing referred to in regulations 150 and 165)—a person registered to undertake the work under the <i>Plumbers, Gas Fitters and Electricians Act 1995</i>;</p> <p>(b) For any other case—a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task.</p> <p>[as defined by the Work Health and Safety Regulations 2012, Regulation 5]</p>
Danger tag 	<p>Danger tags are used for the duration of the work to warn persons at the workplace that:</p> <p>(a) The equipment is isolated or out of service;</p> <p>(b) The energy source must not be switched back on or reconnected; and</p> <p>(c) Switching back on or reconnecting the energy source may endanger the life of the worker working on the equipment.</p> <p>A danger tag does not perform the isolation function.</p> <p>[as defined by the Code of Practice: Managing electrical risks in the workplace, June 2020, Section 6.2]</p>
Electrical equipment	<p>Means any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that:</p> <p>(a) Is used for controlling, generating, supplying, transforming or transmitting electricity at a voltage greater than extra-low voltage; or</p> <p>(b) Is operated by electricity at a voltage greater than extra-low voltage; or</p> <p>(c) Is part of an electrical installation located in an area in which the atmosphere presents a risk to health and safety from fire or explosion; or</p> <p>(d) Is, or is part of, an active impressed current cathodic protection system within the meaning of AS 2832.1:2015 (Cathodic protection of metals—Pipes and cables).</p> <p>Electrical equipment does not include any apparatus, appliance, cable, conductor, fitting, insulator, material, meter or wire that is part of a motor vehicle if:</p> <p>(a) The equipment is part of a unit of the vehicle that provides propulsion for the vehicle; or</p> <p>(b) The electricity source for the equipment is a unit of the vehicle that provides propulsion for the vehicle.</p> <p>[as defined by the Work Health and Safety Regulations 2012, Regulation 144]</p>
Electrical work	<p>Means:</p> <p>(a) Connecting electricity supply wiring to electrical equipment or disconnecting electricity supply wiring from electrical equipment; or</p> <p>(b) Installing, removing, adding, testing, replacing, repairing, altering or maintaining electrical equipment or an electrical installation.</p> <p>[as defined by the Work Health and Safety Regulations 2012, Regulation 146(1) and subject to the exclusions contained in Regulation 146(2)]</p>

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Energy source	<p>The different kinds of energy sources include, but are not limited to:</p> <ul style="list-style-type: none"> (a) Electricity (mains) (b) Battery or capacitor banks (c) Solar panels (d) Fuels (e) Heat (f) Steam (g) Fluids or gases under pressure (water, steam or hydraulic oil) (h) Stored energy (e.g. compressed springs) (i) Gravity (j) Radiation <p>[as defined by the Code of Practice: Managing the Risks of Plant in the Workplace, June 2020 Section 4.5]</p>
Hierarchy of control	<p>If it is not reasonably practicable for risks to health and safety to be eliminated, risks should be minimised, so far as is reasonably practicable, by doing one or more of the following:</p> <ul style="list-style-type: none"> (a) Substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk; (b) Isolating the hazard from any person exposed to it; and/or (c) Implementing engineering controls. <p>If a risk then remains, the duty holder should minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.</p> <p>If a risk then remains the duty holder should minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable personal protective equipment.</p> <p>[as defined by the Work Health and Safety Regulations 2012, Regulation 36]</p>
High risk construction work	<p>Construction work that:</p> <ul style="list-style-type: none"> (a) Involves a risk of a person falling more than 3 metres; or (b) Is carried out on a telecommunication tower; or (c) Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure; or (d) Involves, or is likely to involve, the disturbance of asbestos; or (e) Involves structural alterations or repairs that require temporary support to prevent collapse; or (f) Is carried out in or near a confined space; or (g) Is carried out in or near— <ul style="list-style-type: none"> i. A shaft or trench with an excavated depth greater than 1.5 metres; or ii. A tunnel; or (h) Involves the use of explosives; or (i) Is carried out on or near pressurised gas distribution mains or piping; or (j) Is carried out on or near chemical, fuel or refrigerant lines; or (k) Is carried out on or near energised electrical installations or services; or (l) Is carried out in an area that may have a contaminated or flammable atmosphere; or (m) Involves tilt-up or precast concrete; or (n) Is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians; or



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	<p>(o) Is carried out in an area at a workplace in which there is any movement of powered mobile plant; or</p> <p>(p) Is carried out in an area in which there are artificial extremes of temperature; or</p> <p>(q) Is carried out in or near water or other liquid that involves a risk of drowning; or</p> <p>(r) Involves diving work.</p> <p>[as defined by the WHS Regulations, Regulation 291]</p>
Isolation	The condition where an isolator makes an energy source incapable of being set in motion or releasing its energy.
Isolation procedure	<p>A set of predetermined steps that should be followed when workers are required to perform tasks such as maintenance, repair, installation and cleaning of plant. Isolation procedures involve the isolation of all forms of potentially hazardous energy so that the plant does not move or start up accidentally. Isolation of plant also ensures that entry to a restricted area is controlled while the specific task is being carried out. The lock out process is the most effective isolation procedure.</p> <p>[as defined in the Code of Practice: Managing the Risks of Plant in the Workplace, June 2020 Section 4.5]</p>
Isolator	A device that physically prevents the transmission or release of energy.
Lock box 	To avoid the need for multiple locks on each lock out point, a lock box may be used. Each lock out point is locked by only one lock. The keys are placed inside a box which is locked by the individual locks of people working on the same plant.
Lock out	<p>A system or a process designed to control situations where the unexpected energisation, start-up or release of stored energy of plant has the potential to endanger the health and safety of a worker. In these situations, plant will be:</p> <p>(a) Appropriately isolated and any stored energy released; and</p> <p>(b) Have a personal lock and danger tag applied to the isolating control.</p>
Out of service tag (yellow and black tag) 	<p>Out of service or caution tags are used to identify equipment that is not safe to use or fit for purpose.</p> <p>[as defined by the Code of Practice: Managing electrical risks in the workplace, June 2020 Section 6.1]</p>
PCBU	<p>Person Conducting a Business or Undertaking.</p> <p>[as defined in the Work Health and Safety Act 2012, Section 5]</p>
Permit to work	A formal check to ensure that all elements of a safe system of work are in place before people are allowed to undertake work. It also provides a means of communication between site management, supervisors and persons carrying out the work and makes sure that an authorised person has checked the permit and it is safe to proceed with the work.
Personal danger tag 	<p>Personal danger tags are restricted to persons who will be working on plant.</p> <p>A personal danger tag on the isolation devices of an item of equipment is a warning that the equipment is in an unsafe condition and that operation of that equipment may endanger the person who attached the tag. All personal danger tags of the disposal type should be destroyed after use.</p> <p>A personal danger tag is not an effective isolation device by itself. A tag only acts as</p>

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	<p>a means of providing information to others at the workplace. A personal danger tag will be used in conjunction with a personal lock.</p> <p>A personal danger tag will only be removed by the person whose name is written on the tag.</p>
Personal lock 	<p>A lock identified as a personal lock and being used for personal protection. A personal lock should be accompanied by a corresponding personal danger tag to identify who has locked out the plant.</p>
Plant	<p>Includes:</p> <ul style="list-style-type: none"> (a) Any machinery, equipment, appliance, container, implement and tool; and (b) Any component of any of those things; and (c) Anything fitted or connected to any of those things. <p>[as defined by the Work Health and Safety Act 2012, Section 4]</p>
Risk Assessment	<p>The systematic breakdown of a job into tasks/steps in order to identify hazards, assess risks and select the best controls using the Hierarchy of Control.</p>
Safe Work Procedure (SWP)/ Safe Work Instruction (SWI)/ Safe Operating Procedure (SOP)	<p>A document that records how to carry out an activity safely. The document includes the steps to be followed to complete the activity safely, recorded in a logical progression, along with any controls/safety measures that are to be used.</p>
Safe Work Method Statement (SWMS)	<p>A document required for high risk construction work that will:</p> <ul style="list-style-type: none"> (a) Identify the work that is high risk construction work; (b) Specify hazards relating to the high risk construction work and risks to health and safety associated with those hazards; (c) Describe the measures to be implemented to control the risks; and (d) Describe how the control measures are to be implemented, monitored and reviewed <p>[as defined in the WHS Regulations, Regulation 299]</p> <p>If electrical work falls within the description of 'high risk construction work' then a SWMS will need to be developed.</p>

Procedure

4.1 Introduction

- 4.1.1 The purpose of this procedure is to make sure all energy sources related to plant are made safe so that the unexpected start-up, energisation, or release of stored energy that could cause injury does not occur.
- 4.1.2 The department manager will make sure that the operator controls associated with plant under their control are:
 - (a) Identified on the plant so as to indicate their nature, function and direction of operation; and
 - (b) Located so as to be readily and conveniently operated by each person using the plant; and
 - (c) Located or guarded to prevent unintentional activation; and

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(d) Able to be locked into the "off" position to enable the disconnection of all motive power.

4.1.3 When isolation of electrical equipment or plant is required, this procedure will be read in conjunction with the SWP/ SWI/ SOP and where relevant, the SWMS for the task and any existing risk assessments for the particular item.

4.1.4 If access to any item of electrical equipment or plant is required for the purpose of maintenance, cleaning or repair, it will be stopped (if reasonably practicable) and one or more of the following controls used:

(a) The use of appropriate tags, (out of service tag and/or personal danger tags, as relevant);

(b) Lockout or isolation devices (including personal lock and danger tag);

(c) Permit to work systems; and

(d) Other control measures (in accordance with the Hierarchy of Control).

4.1.5 If it is not reasonably practicable to carry out cleaning or maintenance while the item is stopped, operational controls that permit controlled movement of the plant will be fitted and safe systems of work used (e.g. controlled access, buddy systems and higher levels of supervision).

4.1.6 The department manager will facilitate an adequate supply of out of service tags, danger tags, personal locks, isolating devices and any other equipment required by this procedure for relevant workers.

4.2 Hazard identification and risk assessment

4.2.1 As part of the hazard identification, risk assessment and risk control process, risk assessments that include isolation requirements are to be completed for plant and electrical equipment prior to use or maintenance activities. The risk assessment process will:

(a) Be undertaken by a team consisting of a competent person to lead the risk assessment process, workers who undertake the activity, a HSR (where one exists for the work group), the manager or supervisor and other stakeholders or experts, where relevant;

(b) Cover the entire activity from preparation to work until return to service has occurred;

(c) Identify all hazardous energy sources that may potentially re-activate the plant (refer to Energy source definition);

(d) Identify all isolation points in the plant

i. Manufacturer, supplier, designers or importer instructions should be referenced during the hazard identification and risk assessment process.

If original diagrams of plant installations are not available, new information (e.g. diagrams, photographs) should be sourced or developed by a competent person that show isolation points, switches, valves, energy lines, pipes, power sources and control points as part of the risk assessment process.

ii. Emergency stop buttons, lanyards and similar stop devices will not be relied upon on their own as isolation devices as they will not necessarily achieve isolation.

If plant is designed to be operated or attended by more than one person and more than one emergency stop control is fitted, the department manager will ensure that the multiple emergency stop controls are of the "stop and lock-off" type so that the plant cannot be restarted after an emergency stop control has been used unless that emergency stop control is reset.

(e) Identify all reasonably foreseeable hazards associated with the task. These may include, but not be limited to:

i. Associated equipment that may need to be isolated or locked out to prevent re-activation;

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- ii. Hazardous substances (such as gases, acids, alkalis, solvents, glues or pooled liquids in which a person may drown);
 - iii. Falls;
 - iv. Burns;
 - v. Asphyxiation; and
 - vi. Impact;
- (f) Identify other permits that may be required for the work to be carried out. These include, but may not be limited to, permits for hot work, confined space entry, excavations near buried utility lines, etc. The authorised person will make sure all permits are issued, as required; and
- (g) Be documented on the relevant form within the online reporting form and record the agreed estimations for likelihood, consequence and risk rating.

4.3 Risk Control

- 4.3.1 Risks should be eliminated so far as is reasonably practicable.
- 4.3.2 Where it is not reasonably practicable to eliminate risks, controls will be selected in accordance with the Hierarchy of Control. There needs to be an emphasis on the use of higher level controls and the rationale for utilising a particular control in preference to others should be evident. The risk assessment will clearly indicate what control measures are to be used.
- 4.3.3 The department manager or supervisor will make sure that the outcomes of the hazard identification process are documented in the [Hazard / Risk / Corrective Action Register] in accordance with the Hazard Management Procedure
- 4.3.4 When required by the risk assessment process, a SWP/ SWI/ SOP for the task will be developed. The SWP/ SWI/ SOP should include:
- (a) The situation under which the isolation procedure is to be implemented;
 - (b) The sequence by which the plant /equipment will be shut down;
 - (c) The means and sequence by which the isolation of energy sources (including stored energy) will be achieved;
 - (d) The sequence of lock out for isolation points;
 - (e) The tags to be applied to plant/equipment controls, energy sources and other hazards;
 - (f) The checks and tests that are to be performed prior to the commencement of work;
 - (g) The positions and competencies of persons authorised to perform work and issue permits (if required) in relation to isolation and the work to be done; and
 - (h) Any other special requirements.
- 4.3.5 The controls developed from the identification of hazards in the risk assessment will be in place before work commences.
- 4.3.6 A SWMS will be developed if the work being undertaken fits the definition of high risk construction work.
- 4.3.7 Each person where practicable involved in the job should sign their acknowledgement of the risk assessment and controls prior to work commencing.

4.4 Isolation, tag out and lock out of plant

- 4.4.1 Out of service tags
- (a) Any person who identifies an item of plant which is unsafe and requires removal from service will complete and attach an out of service tag and should, if applicable, fill in and forward

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either an incident report, in accordance with the incident reporting and investigation procedure, or a hazard report form in accordance with the hazard management procedure.

- (b) The information recorded on each tag will be completed in full; a blank warning tag should never be used.
- (c) The tag should be placed in a prominent position on the plant. It will be clearly visible from the position where plant can be started. The tag will be secured so that it is not easily dislodged.
- (d) Out of service tags will **not** be relied upon to provide personal protection and are only to be used as a means of providing information to others at the workplace.
- (e) The person who tagged out the item should make sure that the department manager and/or supervisor and all other relevant persons who use the plant are aware that it has been removed from service as soon as possible.
- (f) When reasonably practicable, plant that is out of service will be moved from the usual work environment to a restricted access and/or quarantine area.
- (g) The out of service tag may only be removed by a competent person once the item of plant to which it relates is fit for return to service or disposal is to occur.

4.4.2 Communication

The person responsible for plant maintenance, cleaning or repair should notify all relevant persons as to work schedule and duration of isolation prior to work commencing.

4.4.3 Plant shutdown

The competent person carrying out plant maintenance, cleaning or repair will:

- (a) Shut the plant down using the steps established in the risk assessment or SWP/ SWI/ SOP ;
- (b) Restrict access to the area while the specific task is being carried out; and
- (c) When required by the risk assessment, obtain a permit to work from an authorised person.

4.4.4 Identify and isolate all energy sources, other hazards and isolation points

- (a) The competent person will undertake or coordinate the isolation of all energy sources and other hazards with any other person involved in the task.
- (b) An effective isolating device that is suitable for the specific type of isolation required will be used.
 - i. This may include switches with built in locks and lock out circuit breakers, fuses and valves, chains, hasps and safety padlocks.
 - ii. For some plant, isolation may only require removal of the power cord from electricity supply, removal of the keys from the ignition of a vehicle or removal of air hoses and the appropriate tag placed over this power source. This is allowable as the only form of isolation if the risk assessment permits it (e.g. if the repairer is in total control of the plant **and** the work environment **and** the plant cannot be restarted by any other means or by any other person.)
 - iii. Except in the case of equipment connected via a plug and socket, a competent person such as an electrician will isolate and disconnect the electricity supply to an item of electrical plant (not just the control circuit) so that equipment cannot be inadvertently energized via another source or control system.

4.4.5 De-energise or control all stored energies

- (a) The competent person will take steps that are necessary to guard against energy left in the plant after it has been isolated, which may include any or all of the following:
 - i. Inspect the plant to make sure all parts have stopped moving;

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- ii. Install ground wires;
- iii. Relieve trapped pressure;
- iv. Release the tension on springs, or block the movement of spring-driven parts;
- v. Block or brace parts that could fall because of gravity;
- vi. Block parts in hydraulic and pneumatic systems that could move from the loss of pressure;
- vii. Bleed the lines and leave vent valves open;
- viii. Drain process piping systems and close valves to prevent the flow of hazardous material;
- ix. If a line is blocked where there is no valve, use a blank flange;
- x. Purge reactor tanks and process lines;
- xi. Dissipate extreme cold or heat and/or provide protective clothing and/or equipment; and
- xii. If stored energy can re-accumulate, make sure monitoring occurs to maintain below hazardous levels.

Where possible, the plant should be tested (e.g. by activating and deactivating controls) to confirm that no stored energy is present and that the plant (or any part of it) is not likely to activate/move.

4.4.6 Lock out all isolation points and tag out plant/equipment controls, energy sources and other hazards.

- (a) The point of isolation should be under the control of the person who is carrying out the work on the isolated conductors.
- (b) One person, one lock
 - i. If more than one person is working on the same plant, each person should attach their individual lock to prevent the isolator being opened before all locks have been removed or opened.
 - ii. If two or more people are working on plant that is isolated through several lock out points, each person should attach a lock and tag to each lock out point or a lock box should be used.
- (c) One lock, one key
 - i. Each person working on the plant should have their individual lock, key and tag. There will be no duplicate key available for any lock, except a master or duplicate key for use in an emergency, which is secured and not readily available.
 - ii. During maintenance, cleaning or repair of the plant, the one key to each person's lock should be held only by that individual person, who is responsible for both locking and unlocking the lock out device.
- (d) Multiple energy sources

If more than one energy source or hazard has to be locked out to enable safe shutdown of the plant, each energy source should be locked out by each person working on the plant (via the use of multi-lock hasps etc.) or each energy source may be locked out by a single lock (the single key to each lock being placed in a lock out box and that lock out box being secured by a multi-lock hasp and a personal lock for each individual person working on the plant).

There should be no duplicate key for any lock, except a master key that is kept in a secure location and which should only be used in an emergency. If more than one energy source needs to be isolated to enable safe shut-down of the plant, the single key to each lock-out device should be held by the same person.

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- (e) A personal danger tag should be attached to an isolator in a visible position whenever the isolator is used to lock out an energy source. It should accompany each lock used in an isolation procedure and identify the person who put the tag and lock in place, the time and date this occurred and the item of plant being isolated.
 - i. Out of service tags and personal danger tags should not be used together. An out of service tag should be removed when a personal danger tag is added and vice versa.
 - ii. The person doing the work should personally fasten their personal danger tag on all lock out devices involved in the isolation procedure. If more than one person is involved in the work, each person should attach their own lock and personal danger tag to the lockout device.
 - iii. Tags should only be used as a means of providing information to others at the workplace. A tag should not be used on its own as an isolation device; only a lock is effective in isolating the energy source.

4.4.7 Test isolation devices

- (a) The competent person will test all isolated energy sources first with appropriate instruments and then by trying to activate the plant before any person attempts to start work on the plant.
- (b) Work on the plant cannot begin until tests have confirmed it is safe to do so.
- (c) The safe work principle 'TEST FOR 'DEAD' BEFORE YOU TOUCH' must be applied at all times to electrical work.
 - i. Even if the electricity supply is believed to have been isolated, it must be assumed that all conductors and electrical components are energised until they have been proven de-energised.
 - ii. Testing for 'dead' must be undertaken as appropriate for the duration of the electrical work.
 - iii. Testing is undertaken prior to touching, taking into account all relevant factors including the nature of the conductor, nature of the isolation, nature of work, if there has been a change or the area has been left idle (unattended) for a period.
 - iv. The testing method (including the tester used) must be safe and effective. The electrical worker carrying out the testing must understand testing procedures and be competent in the use of the tester

4.4.8 Undertake repairs or maintenance

- (a) As each competent person completes their task, they should remove their individual personal lock(s) and personal danger tag(s). No person should remove another person's personal danger tag.
- (b) If work is not completed by the end of a working shift and the plant is required to remain isolated, arrangements should be made for out of service tags to be placed on each isolating point before personal danger tags are removed.
- (c) If work on the plant is to continue during the next shift there should be a hand over by the shift leaving the site to those taking over the work. The hand over should include the status of the work and the removal and replacement of individual danger tags and locks.
- (d) Any guarding that may have been removed will be replaced and secured before energy is restored.
- (e) When work is complete and all locks and tags have been removed, the authorised person should make sure that all persons are clear of the plant before energy is restored and the plant is restarted and returned to service.
- (f) The authorised person should notify the person responsible for the plant that work has been completed and the plant has been restored to an operational condition.

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4.4.9 Failure to remove locks and tags

- (a) Where a person has failed to remove a personal lock and danger tag, the authorised person can request the person to return to the worksite and remove the lock and tag so that the plant can be returned to normal operation.
- (b) If the authorised person is unable to contact the owner of the potentially redundant lock and tag, they should contact the department manager or other manager and, where available, a HSR. The department manager or other manager should:
 - i. Determine the method of isolation in use and the reason for its implementation;
 - ii. Undertake a risk assessment relating to the removal of the isolation device(s);
 - iii. Remove the lock and tag and re-energise the plant or equipment, if safe to do so, or otherwise keep the plant tagged as out of service; and
 - iv. Monitor and review the operational safety of the plant once re-energised.
- (c) An incident report should be completed and contain a full record of the above activities, including the name of the owner or person who did not remove their lock and tag.
- (d) Failure to remove a personal lock and tag may result in initiating performance management procedures being instigated.

4.4.10 Isolation not practical

There may be plant that can only be cleaned, maintained or repaired by moving components slowly under power. The operator's controls must permit the operation of the plant while a person is undertaking maintenance or cleaning of the plant,

If the need for plant to be operated during cleaning or maintenance cannot be eliminated:

- (a) The plant will be fitted with controls that allow safe controlled movement (if reasonably practicable).
 - i. The operational controls will not be able to be operated by any person other than the person who is carrying out the maintenance or cleaning or, if it must be operated by someone else, that person must be authorised to operate the plant for that purpose.
 - ii. The operational controls will allow operation of the plant in such a way that any risk associated with the activities of the person(s) carrying out the maintenance or cleaning are eliminated so far as is reasonably practicable or, if it is not reasonably practicable to eliminate the risk, minimised so far as is reasonably practicable.
- (b) A risk assessment for the task shall be undertaken in accordance with 4.2.1.
- (c) SWPs/ SWIs/ SOPs that eliminate or minimise the risk so far as is reasonably practicable will be developed and implemented from risk assessments.

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4.5 Incidents involving isolation, lock out or tag out.

4.5.1 If an incident involving isolation, lock out or tag out occurs, the person/s involved should, if safe to do so, take whatever steps are necessary to control the hazard and seek any first aid or emergency assistance. This may include following the control measures documented in the organisation's emergency plan.

4.5.2 If a notifiable incident occurs, namely:

- The death of a person; or
- A serious injury or illness of a person; or
- A dangerous incident

a report will be made by the Infrastructure and Operations Manager as follows:

- (a) A notifiable incident is reported to SafeWork SA by the fastest possible means (telephone 1800 777 209 - 24 hours a day) immediately after becoming aware that a notifiable incident has occurred.
- (b) Any incident occurring that involves electricity or an electric shock, gas or plumbing is reported to the [Office of the Technical Regulator](#) (OTR) (telephone: 8226 5500; Business Hours or 1800 558 811 After Hours):
 - i. In the case of a death resulting from the incident - immediately by telephone
 - ii. In the case of a person requiring medical assistance resulting from the incident - within one working day of the incident
 - iii. In any other case that involves electricity - within ten working days of the incident
 - iv. Gas incidents resulting in damage to property of \$5,000 or more – within ten working days of the incident.
 - v. Gas incidents involving a gas infrastructure pipeline (operating above 1050 kPa) resulting in any injury or damage to property, or incidents requiring the attendance of a fire brigade – within one month from the date of the incident.
- (c) In the case of water or sewerage system incidents:
 - i. For Priority type 1 incidents – Verbal notification immediately and written notification within 24 hours. As soon as practicable, register on organisation incident register.
 - ii. For Type 1 incidents - Verbal notification within 3 hours and written notification within 24 hours. As soon as practicable, register on organisation incident register.
 - iii. For Type 2 incidents - Verbal notification may be provided at the organisation's discretion. As soon as practicable, register on organisation incident register.
 - iv. Where any incident attracts media attention, emergency services attendance and/or impacts on any third-party major infrastructure, the OTR must be advised as soon as practicable or within 3 hours (maximum) by telephone to allow for the relevant Minister to be advised.

Further guidance can be found [here](#) (Department for Energy and Mining: Water and Sewerage Infrastructure Incident Notification and Communication Protocol V5 – January 2019). An incident notification form is available from the sa.gov.au website (Energy and environment/Electrical, gas and water technical regulation/Incident reporting/Water and sewerage incidents).

4.5.3 Whenever any statutory reports have been made, the [Insert job title of nominated person] should ensure that the LGAWCS has been notified.

4.5.4 Any claim for worker's compensation should be reported in accordance with the Workplace Return to Work Procedure.

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4.5.5 The Incident Reporting and Investigation Procedure should be complied with, including the requirement that the site where the notifiable incident occurred is not disturbed until an inspector arrives at the site or any earlier time that an inspector directs.

4.6 Monitoring and evaluation

4.6.1 The department manager or delegate will inform all relevant persons about the control measures selected or corrective actions that have been implemented for plant safety. Meeting minutes and/or sign off on risk assessments/ SWPs/ SWIs/ SOPs, and where relevant SWMSs should demonstrate that this has occurred.

4.6.2 A HSR may request a review of a control measure if they reasonably believe that the control measure has not been adequately reviewed.

(a) The circumstances in which a request for review can be made include if:

- iii. The control measure is not effective in controlling the risk it was implemented to control;
- iv. A change occurs at the workplace that could present a new or different risk that the control measure may not effectively control
- v. A new relevant hazard or risk is identified; or
- vi. The results of consultation indicate a review is necessary.

(b) The HSR may only request this review if the above circumstances affect or may affect the health and safety of a member of their own work group.

(c) The HSR should discuss the issue with their department manager and explain their reasons for the request.

(d) The department manager should recommence the risk assessment process (in accordance with 4.2.1) as a result of such a request.

4.6.3 The department manager will make sure that periodic inspections of isolation, lock out and tag out activities take place to assess compliance with documented procedures. The inspection process should include an assessment of conformance with identified controls in an active work situation.

4.6.4 Any corrective or preventative actions identified are to be managed in accordance with the corrective and preventative action procedure.

4.6.5 The management team will regularly review hazard and incident statistics, audit results, legislative changes and other information relating to the isolation, lock out, tag out procedure and direct action, when required. Minutes should record outcomes of discussion and actions undertaken.

4.6.6 The isolation, lock out, tag out procedure will be subject to internal audit and form part of the annual management review process.

4.6.7 The management team should develop objectives, targets and performance indicators for isolation, lock out and tag out, as relevant.

5. Training

5.1 The training needs analysis will identify the training needs and core competencies required for plant isolation, lock out and tag out.

5.2 The training identified in the TNA should be planned and delivered in accordance with the isolation, lock out, tag out procedure.

5.3 This procedure will be explained during the induction process to relevant persons.

5.4 Persons undertaking risk assessments for the isolation, lock and tag out of plant will have specific training that includes legislative requirements for plant.

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- 5.5 Persons who are required to isolate, lock and tag out or operate plant during maintenance or cleaning will be competent in the tasks required for the plant they are to install, commission, maintain, operate, clean or repair.
- 5.6 Any person required to carry out electrical work will be licensed under the Plumbers, Gas Fitters and Electricians Act 1995.
- 5.7 Any person required to carry out work involving a danger of accidental, direct contact with exposed live conductors or exposed live parts of electrical equipment will be competent and qualified to carry out the work with a competent assistant as prescribed by the Electricity (General) Regulations 2012.
- 5.8 Persons who are required to undertake inspection and testing of electrical equipment must be competent to carry out the relevant inspection and testing and to interpret the test results of any equipment they use
- 5.9 Workers who are required to undertake any task or activity under this procedure will receive specific training for all aspects of the task or activity and receive appropriate supervision, as required.
- 5.10 Contractors should be made aware of the isolation, lock out and tag out requirements during the contractor tendering process and should include their control processes when isolation, lock out or tag out is required for a contracted job as part of the contract tendering process.
- 5.11 A registered (and, where relevant, approved) training organisation should deliver any legislatively mandated training

6. Records

The following records will be maintained:

- 6.1 Risk assessments
- 6.2 Safe work procedures/ Safe Work Instructions/ Safe Operating Procedures/ Safe Work Method Statements
- 6.3 Purchase or hire documentation, including operation manuals
- 6.4 Training records, licences and other competency records
- 6.5 Plant inspection, testing and maintenance records
- 6.6 Permits to work
- 6.7 Plant registration and certification records

All records will be managed in line with the current version of General Disposal Schedule 20 for Local Government.

7. Responsibilities

- 7.1 The Senior Leadership Team is accountable for:
 - 7.1.1 Checking that the organisation manages hazards associated with electrical equipment and plant in accordance with legislative requirements;
 - 7.1.2 Consulting with other PCBU's, so far as is reasonably practicable, if their duty of care overlaps;
 - 7.1.3 Approving reasonably practicable budgetary expenditure necessary for the management of isolation, lock out and tag out upon receipt of expenditure requests;
 - 7.1.4 Setting objectives, targets and performance indicators for isolation, lock and tag out, as relevant;
 - 7.1.5 Providing managers and supervisors with training which enables them to:
 - (a) Apply the requirements of legislation, Codes of Practice and relevant Australian Standards for the electrical equipment and plant under their control;
 - (b) Provide adequate supervision to workers under their control; and
 - (c) Enforce the requirements of this procedure;

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- 7.1.6 Checking that authorised persons and other workers who have been provided with training to achieve the competency required to apply the organisation's procedures to the tasks and activities they undertake;
- 7.1.7 Checking that all reasonably foreseeable energy hazards are identified, assessed, controlled and monitored when elimination is not practicable;
- 7.1.8 Monitoring the Hazard /Risk/ Corrective Action Register and enforcing close out of action items;
- 7.1.9 Reviewing the effectiveness of the isolation, lock out, tag out procedure; and
- 7.1.10 Including isolation, lock out and tag out within the management review process.
- 7.2 Managers and supervisors are accountable for:
 - 7.2.1 Providing authorised persons and other workers with the necessary information, instruction, training and supervision to apply required procedures and undertake tasks safely;
 - 7.2.2 Checking that authorised persons and other workers:
 - (a) Understand and can apply the Isolation Lock out Tag Out Procedure and any relevant SWIs/SOPs in relation to the tasks they undertake; and
 - (b) Are competent (and licenced, where applicable) to undertake required tasks;
 - 7.2.3 Checking that all reasonably foreseeable hazards associated with the isolation, lock out and tag out of plant within their department are identified, assessed, controlled and recorded on the Hazard/ Risk/ Corrective Action Register in consultation with workers and/or their representatives;
 - 7.2.4 Communicating the outcomes of risk assessments within the workgroup and across the organisation, as required;
 - 7.2.5 Confirming all affected persons are informed before plant isolation, lock out and/or tag out occurs and when it has been completed;
 - 7.2.6 Undertaking required inspections of activities to assess conformance with this procedure;
 - 7.2.7 Implementing any corrective or preventative actions required for the continual improvement of electrical equipment and plant safety;
 - 7.2.8 Coordinating, supervising, monitoring and reviewing contractor activities for compliance;
 - 7.2.9 Retaining and maintaining records, as required;
 - 7.2.10 Seeking expert advice when a need is identified; and
 - 7.2.11 Providing required reports to the HSC or management team.
- 7.3 The authorised person is accountable for:
 - 7.3.1 Undertaking risk assessments in consultation with workers, as required, and implementing controls from the Hierarchy of Control, monitoring and reviewing for effectiveness;
 - 7.3.2 Checking relevant permits for the work have been issued; and
 - 7.3.3 Coordinating, supervising, undertaking, monitoring and reviewing isolation, lock out and tag out activities to achieve conformance with this procedure.
- 7.4 Workers are accountable for:
 - 7.4.1 Following any reasonable instruction including, where relevant SWMS and SWP/ SWI/ SOP related to plant;
 - 7.4.2 Not using equipment that has been locked out or tagged out of service, or causing those tags to be removed or damaged;
 - 7.4.3 Reporting incidents, hazardous situations or safety issues immediately to their manager or supervisor;

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7.4.4 Assisting in assessing risk, implementing control measures and evaluating them for effectiveness, as required; and

7.4.5 Seeking assistance to manage plant hazards, when required.

7.5 The HSC is accountable for:

7.5.1 Facilitating co-operation between management and workers in matters relating to electrical equipment and plant; and

7.5.2 Monitoring the Hazard/ Risk/ Corrective Action Register and referring matters that require direction or enforcement to the management team.

7.6 HSRs may:

7.6.1 Facilitate consultation between department managers and workers in relation to WHS matters that affect the workgroup they represent;

7.6.2 Request and assist in the review and revision, where necessary, of risk control measures related to isolation, lock out and tag out activities.

8. Review

8.1 The isolation, lock out, tag out procedure will be reviewed by the management team, in consultation with workers or their representatives, every four (4) years or more frequently if legislation or organisational needs change. This will include a review of:

8.1.1 Feedback from managers, workers, HSRs, HSC, contractors or others;

8.1.2 Legislative compliance;

8.1.3 Performance Standards for Self Insurers;

8.1.4 LGAWCS guidance;

8.1.5 Internal or external audit findings;

8.1.6 Incident and hazard reports, claims costs and trends related to isolation, lock out and/or tag out; and

8.1.7 Any other relevant information.

8.2 Results of reviews may result in preventative and/or corrective actions being implemented or revision of this document.

9. References

Work Health and Safety Act 2012

Work Health and Safety Regulations 2012

General Disposal Schedule 20 for Local Government

ReturnToWork SA Performance Standards for Self-Insurers

Electricity Act 1996

Electricity (General) Regulations 2012

Plumbers, Gas Fitters and Electricians Act 1995

Code of Practice: How to Manage Work Health and Safety Risks, June 2020

Worker Representation and Participation Guide

Code of Practice: Managing the Risks of Plant in the Workplace, June 2020

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Code of Practice: Managing Electrical Risks in the Workplace, June 2020

Code of Practice: Confined Spaces, June 2020

The following standards are prescribed codes of practice under the Work Health and Safety Regulations 2012 and are relevant to plant:

Australian/New Zealand Standard AS/NZS 1200:2000 Pressure Equipment

Australian Standard AS 1418.1:2002: Cranes, Hoists and Winches – General Requirements

Australian/New Zealand Standard AS/NZS 1576.1:2010: Scaffolding- General Requirements (parts 1-4)

Australian Standard AS 2030.1:2009 : Gas Cylinders – General Requirements

Australian Standard AS 2550.1:2011: Cranes, Hoists and Winches – Safe Use – General Requirements

Australian Standard AS 2593:2004: Boilers – Safety Management and Supervision Systems

Australian/New Zealand Standard AS/NZS 3788:2006: Pressure Equipment—In-Service Inspection

Australian Standard AS 4024.3001: 2009 Safety of Machinery – Materials and Forming Shearing- Mechanical Power Presses

Australian Standard AS 4024.3002: 2009 Safety of Machinery – Materials and Forming Shearing- Hydrologic Power Presses

[The following Australian Standards may need to be referenced depending on the nature and hazards of the work being undertaken and the respective work environment. NOTE: this is not an exhaustive list.]

Australian Standard AS 1636.1:1996 Tractors - Roll-over Protective Structures Criteria and Tests- Conventional Tractors

Australian Standard AS 1657:2018: Fixed Platforms, Walkways, Stairways and Ladders—Design, Construction and Installation

Australian Standard AS 1788.1 & 2:1987: Abrasive Wheels (Parts 1 and 2)

Australian/New Zealand Standard AS/NZS 1891.1:2007: Industrial Fall Arrest Systems and Devices

Australian/New Zealand Standard AS/NZS 1892.5:2000 – Portable Ladders. Selection Safe Use and Care

Australian Standard AS 1893:1997 Code of Practice for the Guarding and Safe Use of Metal and Paper Cutting Guillotines

Australian/New Zealand Standard AS/NZS 2211:5: 2006 (R2016) Safety of Laser Products

Australian Standard AS 2294.1:2007 Earthmoving machinery – Protective Structures -General

Australian Standard AS 2397: 2015 Safe Use of Lasers in the Building Construction Industry

Australian Standard AS 2971:2007 Serially Produced Pressure Vessels

Australian/New Zealand Standard AS/NZS 3000: 2018 Electrical Installations-(known as Australian / New Zealand Wiring Rules)

Australian Standard AS 3920.2015: Pressure Equipment – Conformity Assessment

10. Australian Standard AS 4343:2014 Pressure Equipment - Hazard LevelsReferences

Confined Space Procedure

Corrective and Preventative Action Procedure

Electrical Safety Procedure

Hazard Management Procedure

Incident Reporting and Investigation Procedure

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Plant Procedure

Training and Induction Procedure

Hazard/ Risk/ CAPA Register

GDS 40

11. Document history

Document History:	Version No:	Issue Date:	Description of Change:
	1.0	Dec 2009	New Document
	2.0	31/05/13	Terminology and process changes to reflect 2012 WHS act, Regulations and Codes of Practice (COP) Examples of changes include; OHS to WHS and employee to worker where appropriate. Inclusion of Out of service tags, changes to emergency stop information and communication requirements.
	3.0	17/06/16	Updated references to WHS Committee to Health and Safety Committee for consistency with WHS Act and Codes of Practice; Replaced various references to SWIs, SOPs, SWMS with SWP and JSA with risk assessment for consistency with Code of Practice How to Manage Work Health and Safety Risks; Update legislative references; language and formatting
	4.0	09/08/2021	Minor formatting and grammar changes. Added definitions for High Risk Construction Work & Safe Work Method Statement; incident reporting requirements for lock out tag out; 11. References; Multiple energy sources – no duplicate key, except master key; Manager & supervisor accountability for checking authorised persons and other workers.; and GDS 40 Updated Australian Standards and simplified definition of lock box. Changed document review time frame from 24 months to 4 years.

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